AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning on page 9, line 1, as follows:

Referring to Figure 3, the charge current distributor 22 may include a switching circuit [[29]] 23 implemented as a single pole multi-throw switch having a common contact 40 connected to the power supply bus 24 and having a plurality of port contacts, three of which are shown at 42, 44, and 46, defining three battery charging ports operable to be selectively connected to the positive terminals of respective batteries 12, 14 and 16 or battery banks of the battery system 11. The charge current distributor 22 may have contacts defining any number of battery charging ports. The single pole multi-throw switch also has a wiper 50 operable to selectively connect the common contact 40 to any of the port terminals 42, 44, and 46. The switching circuit may be implemented by any type of actuated contact device such as a rotary switch, for example, driven by a stepper motor (not shown) controlled by the control signal produced by the controller 26 shown in Figure 2.

Please amend the paragraph beginning on page 9, line 15, as follows:

Alternatively, referring to Figure 4, the charge current distributor 22 may include a switching circuit implemented by a plurality of single pole, single throw switches, three of which are shown at 52, 54, and 56, each having a first terminal 60, 62, and 64, respectively, connected to each other and to the power supply bus 24. Each switch 52, 54, and 56 also has a respective second terminal 68, 70, and 72 acting as a port terminal to which a respective positive terminal of a battery or battery bank may be connected. Each switch 52, 54, and 56 also has a respective wiper 76, 78, and 80 selectively operable to connect its associated respective common terminal 60, 62, and 64 to a respective port terminal 68, 70, and 72. The embodiment shown in Figure 4 may be realized by employing a plurality of single pole, single throw relays (not

shown), the coils of the relays being selectively activated in response to the control signal produced by the controller 26. Alternatively, the embodiment shown in Figure 4 can employ the switching circuit described below relative to Figure 5 or other ~~converted~~ conventional semiconductor switches. Herein, the term "control signal" refers to any signal or collection of signals activated or modulated in any manner determined by the specific implementation of the current distributor 22 under consideration to permit the controller 26 that produces the control signal to selectively connect ports of the current distributor 22 to which batteries or battery banks are connected to the power supply bus 24.

Please amend the paragraph beginning on page 10, line 13, as follows:

Referring to Figure 6, a representative branch circuit of the type shown in Figure 5 is shown generally at 110 and includes first and second metallic oxide semi-conductor field effect transistors (MOSFETS) 112 and 114 connected in an anti-series totem pole arrangement between the power supply bus 24 and a port terminal 118. This arrangement permits blocking of reverse current through the MOSFET body diode which inherently provides for reverse battery polarity protection. The MOSFETS 112 and 114 are driven by gate drive signals on respective conductors 124 and 125. The gate drive signals are provided by a gate drive unit 128 which produces the gate drive signals in response to a control signal received at a control signal input 130 from the controller 26. The gate drive signals are referenced to a reference point between the MOSFETS 112 and 114, which is connected to the gate drive unit 128 by a conductor 126. When the control signal is active, the gate drive unit 128 produces gate drive signals that turn on both MOSFETS 112 and 114 to provide a very low resistance conducting path between the power supply bus 24 and the port 118. Similarly, when the control signal received at the gate drive unit 128 is inactive, both MOSFETS 112 and 114 are turned off, thus

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preventing any flow of current from the power supply bus 24 to the corresponding port 118. Alternative implementations of the current distributor can be provided by replacing MOSFET 112 with a diode, or alternative semiconductor devices such as Bipolar Junction Transistors (BJTs) could be used. If reverse polarity protection is not desired, and only small differences in voltages between banks are expected (less than a diode voltage drop), then MOSFET 112 may be omitted and MOSFET 114 may be connected between the power supply bus 24 [[to]] <u>and the</u> port 118 ~~could be performed~~. Alternatively a bipolar junction transistor could be substituted for MOSFET 112 and directly connected to the port with (or without) a series diode. These alternative implementations may not provide complete bi-directional isolation of ports (118, 102, 104, or 106) from the power supply bus 24, over a full range of system voltage conditions, however.

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